

APPENDIX E

Review of Collaborative Administration

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Section I

Board-Ordered Review

The New Jersey Board of Public Utilities (Board) requested that Davies Associates, Inc. (DAI) conduct a comprehensive review of the New Jersey gas and electric utilities' administration of the energy efficiency (EE) and renewable energy (RE) programs, as directed by the Board's Comprehensive Resource Analysis (CRA) Final Order on March 9, 2001. The findings and recommendations of the review are to assist the Board in determining whether the utilities should continue to administer the EE programs, and if not, to assist the Board in selecting an Independent State Administrator (ISA) for these programs. In this review, DAI is to also make recommendations to the Board concerning the ISA for the customer-sited clean energy generation program. Finally, DAI is to evaluate the administrative costs of these programs.

The major elements of the CRA Final Order concerned the funding, administration, and program design of the EE and RE programs. The Board found that utility administration of the EE and RE programs was appropriate for a period of one year until the Board received a report reviewing the first-year's administration. Subsequent to the report, the Board will make a decision on how best to continue the administration of these programs through the remainder of the initial four-year period.

This Appendix examines the general program administration activities of the utilities over the period beginning with the Final Order, March 9, through December 31, 2001, the end of the CRA's first fiscal year. Other supporting information germane to this Appendix can be found in:

- Appendix A - a review and discussion of administrative costs
- Appendix B - a review and analysis of the experiences of other states with societal benefit charges (SBC)-funded EE&RE programs
- Appendix C - a assessment of the options for administering and managing SBC-funded EE&RE programs
- Appendix D - a discussion and analysis of market transformation



Section II

Work Plan

In conducting its comprehensive review of the utilities' administration of the CRA programs, DAI was given specific directions by the Board. As specified by the Board, DAI used:

- The CRA Final Order
- The Utilities' Compliance Filings
- The Board's affiliate relations standards
- The experiences of other states with similar programs
- All documents that the Board, its staff, and DAI deemed necessary

In addition, DAI conducted interview with utilities, BPU staff, state agency staff, environmentalists, and EE&RE interest groups.

Our review also considered the minimum program administrative requirements outlined by the Utilities/NRDC Stipulation of February 8, 2000 and adopted by the Board in the Final CRA Order. These requirements directed the utilities to:

- Adhere to the affiliate relations standards adopted by the Board
- Meet the agreed upon minimum performance requirements for each program, as set forth in each program plan
- File timely program plan updates and evaluation reports
- Incorporate results of program evaluation into program implementation plans in a timely fashion
- Maintain statewide consistency in program design and implementation
- Properly and adequately staff and implement programs

In order to complete a review that would address these numerous and extensive requirements in the short period of time allocated by the Board, DAI used a number of fact-finding and program review tools and strategies that included on-site interviews and attending and observing CRA-related meetings, extensive reviews of the Board Orders and Compliance Filings, e-mail and telephone discussions and interviews, reviews of related published material, and reviews of other requested and unsolicited material presented to DAI by utility representatives, BPU staff, other New Jersey State employees, members of energy, conservation, and industry organizations, and representatives of private businesses in the state. The information collected by these



means was synthesized by DAI staff and was used to develop the conclusions and recommendations presented to the Board in this report.

Interviews

DAI arranged for a number of interviews with organizations and persons knowledgeable of the CRA and the objectives of the EE and RE programs in order to collect first-hand information about various aspects of the CRA program. The dates, locations, and persons interviewed are listed below in chronological order. At all times, the interviewees were extremely accommodating in meeting with DAI staff and they were all forthcoming in their responses. In addition, Mr. Pascuale Salvemini from the Board's Audit Division was in attendance throughout each of the interviews.

December 18, 2001 at Newark, NJ

BPU, Division of Audits

Thomas Langbein
Jose Catalan
Angelita Diaz
Robert Ortman
Rajarshi Patel
Daniel Sussman
Albert Weierman
Robert Wojak

BPU, Division of Energy

Monna Mosser
Cameron Johnson

January 8 and 9, 2002 at Newark, NJ

BPU, Division of Audit

Jose Catalan
Angelita Diaz

Orange & Rockland

Kevin Jones

Public Service Electric and Gas Company

Michael Moscufo
Chris Joannides
Fred Lynk
Thirza Jacobus
Tom Cowherd

January 10, 2002 at Bedminster, NJ



NUI Elizabethtown Gas

Phil Germinario
Michael Uryniak
Bill Sukaly
Roz Williams

January 11, 2002 at Morristown, NJ

GPU Energy

Larry Sweeney
Maura Watkins
Harry Stamateris
Christopher Siebens
Linda Wetzel

January 17, 2002 at Newark, DE

Conectiv Power Delivery

Roger Pederson
Jim Cinelli
Leonard Beck
Mike Poncia
Walt Davis
James Diefendorfer

January 18, 2002 at Wall Township, NJ

BPU, Division of Audits

Al Weierman

New Jersey Natural Gas

Robert Kudrick
Robert Gallo
Kevin Moss
Tom Kononowitz

January 22, 2002 at Folsom, NJ

South Jersey Gas

Gary Dean
Bruce Grossman
Sam Valora

January 28, 2002 at Newark, NJ

Deloitte & Touche



Michael Ambrosio

January 29, 2001 at Newark, NJ

State of New Jersey, Division of Ratepayer Advocate
Nusha Wyner
Bud Ubushi

Energy Photovoltaics, Inc.
Dolores Phillips

Mid-Atlantic Solar Energy Industries Association
Lyle Rollins

Advanced Solar Products, Inc.
Rick Brooks

PowerLight Corporation
Tom Leyden

State of New Jersey, Office of Sustainable Business
Cassandra Kling

Natural Resources Defense Council
Dale Bryk

Northeast Energy Efficiency Partnership, Inc.
Susan Coakley

March 8, 2002 at Newark, NJ

Potter & Dickson
Bill Potter

Quality Conservation Services, Inc.
Jim Maitilasso

SESCO, Inc.
Richard Esteves

Meetings attended and observed

DAI staff had the opportunity to attend other meetings related to the CRA review. These included:

- An initial meeting with BPU Audit Division and Energy Division staff and representatives from the utilities on December 19, 2001 in Newark. The



meeting included an introduction by the Audit staff on the work that DAI was hired to accomplish, a presentation by DAI staff on an overview of the report objectives, workplan, schedule, organization, and administration, and a presentation by utility employees on the "New Jersey Collaborative, A Statewide Administrator Model."

- The New Jersey Clean Energy Collaborative Renewable Energy stakeholder meeting on December 20, 2001 in Edison.
- The New Jersey Clean Energy Collaborative Management Team Meeting on January 28, 2002 in Newark.
- A briefing on March 7, 2002 by the Division of Audits on the initial audits of CRA Administrative Costs and to hear comments on the difficulties encountered in obtaining CRA cost information and reconciling these costs to the Collaborative administrative cost reports from the individual utilities.

Telephone and e-mail discussions and interviews

DAI staff had the opportunity to communicate via telephone and e-mail with others not formally interviewed in person who provided insights to the operation and results of the CRA EE & RE programs and input to this report. They included:

Solar Works, Inc.

Michael Guglielmo

Sustainable Business Alliance

Ron Kamen

BP Solar Company

Jerry Paner

Alternative Power, Inc.

Anthony Pereira

New Jersey Higher Education Partnership for Sustainability and Keane University

Donald Wheeler

State of New Jersey, Office of Innovative Technology and Market Research

Michael Winka

Tellus Institute

David Nichols

Review of published and unpublished material



Every attempt has been made to list all the published and unpublished documents reviewed in the course of this report in the Bibliography.

Summary

Between November 23, 2001 and March 8, 2002 DAI staff attempted to contact those most knowledgeable of the CRA EE and RE process and programs. At all times the "door was open" for those who were aware of our activities and our charter to contact us via phone, e-mail, or in person. We also took every opportunity to participate and attend meetings that were germane to this review. We feel quite comfortable, given the short period allowed for this review, that we completed a comprehensive and extensive fact-finding mission that provides us with a deep and extensive understanding of the CRA EE and RE process and programs.

Section III

CRA Final Decision & Order

On March 9, 2001 the Board issued its Final Decision & Order, effectively putting in motion the CRA process of allocating SBC funds to be used for New Jersey state EE and RE programs. The Board followed direct instructions contained in the state's 1999 Electric Discount and Energy Competition Act (EDECA) and also made certain decisions, interpreting the intent of the Act, specifically addressing how the CRA would actually be funded, administered, and designed.

The Board directed the utilities to fund the CRA program, trying to allocate fair shares of contributions from the seven utilities. Taking into consideration the requirements of EDECA, new funding for the CRA would begin in calendar year 2001 at \$115.0 million. This represented about one half of the annual funding level of the utility DSM programs calculated for 2000 (\$215 million), plus an additional one-half of interim funding (\$15 million). Funding levels are scheduled to increase to \$119.3 million in 2002 and to \$124.1 million in 2003 – see Table 1 and Figure 1. The funding was set for only three years to coincide with utility rate caps currently in effect and ending August 2003. Year 2004 funding was left to be determined when the caps expired, but the Board is reserving an additional \$15 million to add to whatever the calculated total for 2004 should be. The Board further stated that there would be another four years of funding, 2005-2008, to comply with the minimum eight years of CRA set forth in EDECA.

The Board also found that the funding would be allocated according to EDECA at 25 percent for Class I renewable energy programs and 75 percent allocated to energy efficiency programs, beginning in 2001. The Board further disaggregated RE funding to include a 40 percent allocation to grid supply and 60 percent to customer sited



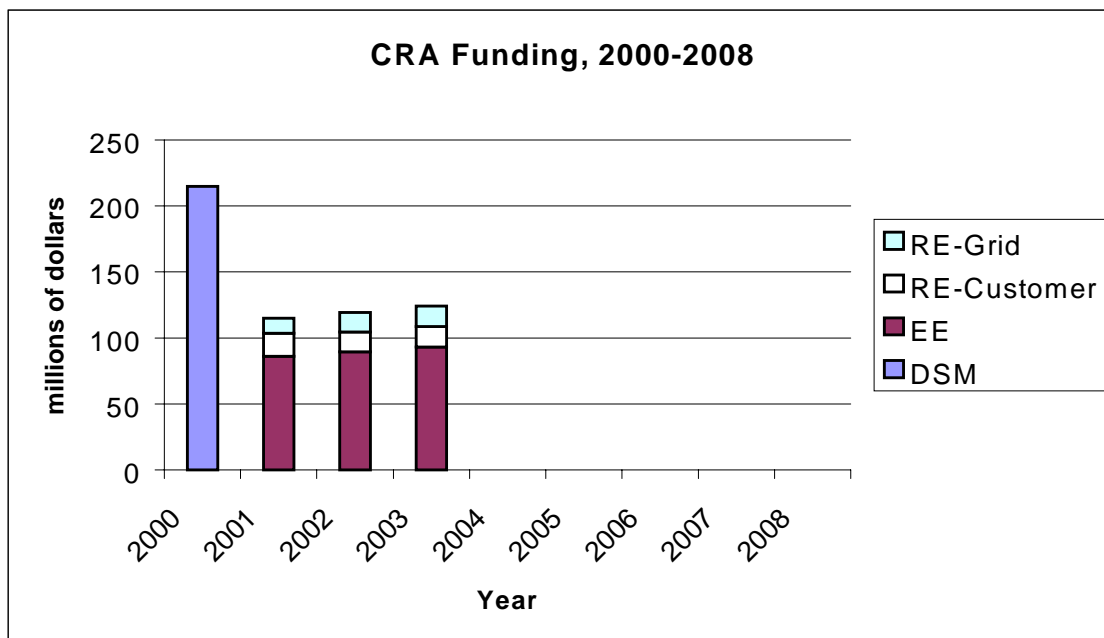
programs in 2001, in recognition of the fact that grid supply technological applications may not be as mature and in need of immediate funding. However, the Board found that for subsequent years, the RE funds would be apportioned equally between grid supply and customer sited programs.

With regard to administration, the utilities were given the responsibility of administering the EE program and the customer-sited renewable programs for one year. At the end of that period, the Board, taking the review and recommendations in this report into consideration, will decide which entities will administer the programs for the remainder of the four-year period. The Board further required the utilities to adhere to a strict quarterly reporting schedule in order to ensure proper CRA implementation. The Board reserved for itself administration of the grid-connected renewable energy supply programs, in consultation with the Department of Environmental Protection.

Table 1
CRA Program Funding, 2001-2008

(millions of dollars)

		CRA			
	DSM	Total	EE	RE-CS	RE-G
2000	215.0	-	-	-	-
2001	-	115.0	86.3	17.3	11.5
2002	-	119.3	89.5	14.9	14.9
2003	-	124.1	93.1	15.5	15.5
2004	-	TBD(+15.0)	TBD	TBD	TBD
2005	-	TBD	TBD	TBD	TBD
2006	-	TBD	TBD	TBD	TBD
2007	-	TBD	TBD	TBD	TBD
2008	-	TBD	TBD	TBD	TBD

Figure 1

The Board also ordered that the program design for the customer-sited renewable energy programs consist of a buydown program designed to supply a customer's energy needs and a production credit for grid supply projects awarded on a competitive basis. In addition, the Board clearly stated in the Final Order that "the basic design of energy efficiency shall be market transformation consisting of various program strategies, which will address all market segments to some degree."

In summary, the Board issued findings and directed the utilities to a course of action. The ones of most concern to this particular review of the utility program administration include:

1. That CRA program funding levels conform to the levels and allocations described in detail above.
2. That the annual contributions by the seven utilities to the EE & RE funding over the three-year period would range from a high of 55% by Public Service Electric and Gas to less than 0.5% by Rockland Electric Company.

3. That "administrative costs" shall be defined as "direct labor costs of the administering entity plus overhead" and that they would be reported separately; and that "(o)ther costs, that could be considered administrative in nature, shall also be tracked."
4. That the utilities would assume administration of the EE programs for one year, filing a detailed budget request within 30 days and implementing them within 60 days, and that they would comply with the minimum requirements of the administrator as provided to the Board in the Utilities/NRDC Stipulation of February 8, 2000.
5. That each utility would provide detailed quarterly reports of each EE program detailing budget vs. expenditure for administration, incentives, advertising costs, marketing costs, training costs, consultant costs, contractor costs and, the goals and incentives metrics vs. achievements.
6. That the utilities would assume administration of the RE Customer Sited Clean Energy Generation program for one year, implementing it within 30 days, and begin immediately processing applications received by the Board under its December 4, 2000 Interim Order.
7. That the utilities would provide detailed quarterly reports of the Customer Sited RE program, including the type and size of the technology, the cost of the system, the cost of installation, the amount of any other incentives, the amount of energy savings provided, the buy-down amount and to whom the incentive was paid, and the reservation dates, application dates, inspection dates and the check issued dates.

Section IV

Utilities Compliance Filings

In complying with the Board's CRA Final Decision and Order of March 9, 2001, the utilities have submitted a number of filings, including program plans, budget requests, and quarterly program progress reports over the last year which are documented in this Section. However, these filings are not being submitted by each utility.

Subsequent to the Order, the seven New Jersey utilities and the Natural Resources Defense Council (NRDC) formed the New Jersey Clean Energy Collaborative to better manage the new, state-wide EE and RE programs and to provide an organizational structure to compile joint filings. The Collaborative's stated purpose is:



To design, implement and evaluate clean energy programs that meet the requirements of the New Jersey EDECA legislation and the BPU's Orders and that provide significant long-term savings to New Jersey residents and businesses.

The Senior Management Team oversees and manages the Collaborative and it is comprised of one representative from each utility and an NRDC representative. The Team is assisted by private contractors that perform the day-to-day operations required by the group (e.g., arranging, coordinating, and facilitating/moderating meetings, arranging for and supervising other technical contractors, acting as the point-of-contact for filings, etc.). The Senior Management Team has two other groups reporting to it: A Regulatory Matters Team and a Media/Website Team, both staffed with utility representatives. However, the bulk of the Collaborative actually consists of the Program Working Groups that report to the Senior Management Team and conform essentially to the twelve EE and RE programs lines or particular market sectors. The Working Groups provide direction, focus, and consistency to the EE and RE programs. Each Working Group has a Senior Management Sponsor and a Convener who are utility staff, and an Advisor, who is a contractor and technical expert on energy conservation and efficiency in the particular market sector.

This organization, the Collaborative, essentially administers the CRA EE and customer-sited RE programs for the utilities. The Collaborative handles all financial and funding issues, provides program strategies and planning, and designs and evaluates programs under the direct purview of the New Jersey BPU. As such, it is the body that responds through filings to Board Orders.

April 9, 2001 - CRA Compliance Filing

The Collaborative filing consisted of four sections: Program transition plans that map utility DSM programs onto the new CRA programs (Attachment 3), updated program plans for 13 EE and the RE programs (Attachment 2a and the redlined version, 2b), program budgets for 2001 (Attachment 1), and overviews of program evaluations, energy savings protocols, cost-effectiveness and reporting (Attachment 4). Consistent with prior guidance, the program budgets across all programs at all utilities totaled \$114.999 million and listed a budgeted Administrative cost total of \$4.772 million, or 4.15 percent. The two largest budget categories include direct payments for Grants, Incentives, and Arrears Reduction (\$53.601 million or 47%), and direct payments for Implementation Contractors (\$23.051 million or 20%).

July 9, 2001 - Supplemental CRA Compliance Filing

The Collaborative filing consisted of five separate attachments. Attachment 1, Energy and Economic Assessment of Energy Efficiency Programs (Cost Effectiveness), presents the projected impacts of programs, including market effects, and their relationship to



costs over a three-year period. Attachment 2, The Protocols to Measure Resource Savings, provides the methods to measure unit savings for program tracking and reporting. Attachment 3, The Program Evaluation Plan, outlines the plans for assessing markets, lists plans for the process evaluation, and lists performance indicators. Attachment 4, Regulatory Reporting, provides worksheet formats that are to be used to compile expenditures, commitments, budget information, electric and gas savings, and other progress made on a quarterly basis. Attachment 5, Performance Incentives, proposes a detailed system of awarding performance incentives to the utilities for successes in their performance-based programs.

August 15, 2001 - Program Compliance Filing Order

The Board considered four issues that needed to be resolved. The first related to the 2001 Program Budgets, and the Board again expressed its concern about administrative costs and the correct measurement of administrative costs, and directed the utilities to provide any information that the eventual consultant (DAI) found necessary. The Board also ordered that the 2002 Budget be filed by October 1, 2001 and that the utilities begin specifically indicating utility personnel and overhead in relevant categories. The second issue was consideration of the EE and RE program plans. The Board approved those plans, but in most cases with modifications. The third issue concerned Program Transition Plans which were adopted by the Board with a slight modification to the spending level of legacy programs to be incorporated in the CRA EE program. The fourth issue concerned protocols, energy savings, program evaluations, cost-effectiveness and reporting. The Board delayed review and approval to a subsequent date.

September 26, 2001 - Second Quarter CRA Report

This inaugural report includes overview descriptions of each program, detailed budgeted expenditures vs. actual and committed expenditures for January 1, 2001 through June 30, 2001 (including a split for the EE transition period and the RE transition period) by program and by utility, and program results including participants, energy savings, and emissions savings.

September 26, 2001 - Board Order Initiating Audit

This Order authorized the Division of Audits staff to conduct an audit of the utilities in two phases: The first requested findings and recommendations addressing whether DSM revenues and expenditures are properly accounted for and are available for the CRA EE and RE programs; the second requested findings and recommendations on the reasonableness of the administrative cost of the DSM programs from August 1, 1996 through July 31, 1999 and called for further action if staff found them too high.

November 1, 2001 - CRA 2002 Plan Filing



After obtaining a one-month extension for filing, this Collaborative filing consisted of three Attachments: Updated Program Plans, Program Budgets for 2000 for \$132.666 million, and another Proposed Performance Incentive Plan, this one for 2002 Program Results. Of note in this filing, the total budget exceeded the original Board-approved CRA level of \$119.3 million because the Collaborative expected year 2001 carryover, which was allowed by the Board. In addition, the Collaborative proposal for performance incentives is limited to eight performance-based programs, and in total would not exceed \$6.958 million, less than 6% of the 2002 budget.

November 30, 2001 - Third Quarter CRA Report

This quarterly submission reflects activities for the calendar year through September 30, 2001. As with the September submission, it reports detailed budgeted expenditures vs. actual and committed expenditures by program and by utility, detailed program results including participants, energy savings, and emissions savings. It also includes Appendix 1, Notes and Definitions, definitional descriptions of phrases used in the report, and various units of measures for program participants.

February 2002 - Fourth Quarter CRA Report

This final submission for the first year of the CRA EE and RE programs reflects activities through December 31, 2001. The report includes an executive summary, an Introduction, and chapters on Overall Program Expenditures and results, and Detailed program Results. Appendix 1 of the quarterly report is Notes and Definitions and Appendix 2 is comprised of detailed worksheets by utility and statewide on expenditures, program participants, annual and projected lifetime energy savings, and annual and projected lifetime emissions savings. Of particular note: Total actual EE program expenditures for the year were \$56.570 million (66% of the authorized amount of \$86.132 million) with additional "committed" expenditures of \$13.991 million (16% of the authorized amount). Actual RE customer sited expenditures of \$0.951 million were less than 6% of the authorized level, including commitments, that figure rises to \$9.167 million or 53%. Also of note: Statewide expenditures for Administration were 6.6%, just under 41% for direct payments for Grants, Incentives, Arrears reduction, and just over 33% for direct payments for implementation contractors.

Section V

Minimum Program Administration Requirements

The Board in its March 9, 2001 Final CRA Order adopted verbatim the minimum program administrative requirements outlined by the Utilities/NRDC Stipulation of February 8, 2001. DAI staff used a variety of tools to gather facts on the utilities' performance according to these requirements. Most important, DAI requested that



each utility respond to each of the requirements and provide a justification for how it met the minimum program requirements. In most cases, the utilities relied on a single Collaborative response to provide documentation and justification. A few requirements were documented and justified individually by each utility. A summary of the Collaborative and utilities' responses is presented below.

Adhere to the affiliate relations standards adopted by the Board

Conectiv

PMC-WGA completed an affiliate standards compliance audit and issued a report on October 17, 2000. The audit contained nine recommendations, but otherwise concluded that Conectiv complied. On February 8, 2002, the Board ordered Conectiv to comply fully with the seven undisputed recommendations. Conectiv filed an implementation plan with the Board on March 1, 2002 regarding the two remaining disputed recommendations.

GPU Energy

Thelen, Reid & Priest submitted an affiliate standards compliance audit to the Board on June 14, 2000 which set forth how the utility planned to comply with the requirements, and the plan was updated on July 19, 2001. Seven recommendations were made by a PMC-WGA audit on October 17, 2000. The Board on February 8, 2002 adopted five of these recommendations and deferred two others related to the company website and employee training in standards compliance for further review.

New Jersey Natural Gas

Schumaker & Company, Inc. conducted an audit of New Jersey Natural Gas Company's affiliate relations standards compliance and issued a report dated October 16, 2000. The Board on February 8, 2002 ordered that New Jersey Natural Gas implement nine of the 14 recommendations proposed in the Schumaker & Company report. The utility, which agreed with and had already implemented the recommendations, continues to comply with the affiliate relations standards.

NUI Elizabethtown

Schumaker & Company conducted a competitive services and affiliate standards audit of the company, which was issued October 16, 2000. In the Order on February 8, 2002, the Board adopted 12 of the 13 recommendations made by Schumaker. The company disagreed with seven of the recommendations and the Board ordered it to comply with the other five. On February 28, 2002 the company filed an updated Plan with the Board.



Public Service Electric & Gas Company

Vantage Consulting, Inc. conducted an audit of the company's affiliate standards compliance and issued a report dated October 16, 2000. This audit concluded that the company had made substantial progress with the standards compliance. The Board's February 8, 2002 order required that the company submit an implementation plan for certain recommendations Vantage identified to enhance the company's program.

Rockland Electric Company

PMC-WGA conducted an audit of the company's affiliate standards compliance and issued a report October 17, 2000. The audit concluded that the company complied with the revised standards and the company states that it continues to comply.

South Jersey Gas Company

Schumaker & Company conducted a competitive services and affiliate standards audit of the company, which was issued October 16, 2000. In the Order on February 8, 2002, the Board adopted 12 of the 13 recommendations made by Schumaker. The company states that it will be implementing the 12 recommendations adopted by the Board and will be submitting an implementation plan to the Board before March 1, 2002.

As set forth in each program plan, meet the agreed upon minimum performance requirements for each program

On March 4, 2002 DAI received an extensive 33-page final response to the request for information from the utilities on their attainment of the minimum performance requirements for each program. That response to attaining the minimum requirements is summarized below by program.

Residential

- HVAC Electric: Met or exceeded 2 of the 3 major collective minimum requirements, and 3 of the 4 utilities exceeded individual minimum requirements.
- HVAC Gas: Met or exceeded all 3 of the major collective minimum requirements, and 3 of the 4 utilities exceeded individual minimum requirements.
- Energy Star Windows: Met or exceeded all 3 of the major collective minimum requirements.



- Energy Star Appliances: Met or exceeded all 3 of the major collective minimum requirements.
- Energy Star Lighting: Completely met or exceeded 3 of the 3 major collective minimum requirements.
- Low Income: Met or exceeded 2 of the 3 major collective minimum requirements.
- New Construction: Met or exceeded both major collective minimum requirements, and 6 of the 7 utilities exceeded individual minimum requirements.
- Retrofit: Met the major collective goal and all 7 utilities exceeded individual minimum requirements.

Non-Residential

- Commercial & Industrial Construction: Met or exceeded all 3 of the major collective minimum requirements and met or exceeded 12 of the 21 individual utility minimum requirements.
- Commercial & Industrial Building Operation & Maintenance: Met or exceed both major collective minimum requirements.
- Compressed Air Optimization: Met or exceeded 2 of the 3 collective minimum requirements.

Other Programs

- Appliance Cycling: No minimum requirements for 2001.
- Schools EE & RE: Met the single major collective minimum requirement.

Renewable Energy Programs

- Customer Sited Clean Energy Generation: Met both major collective minimum requirements and 4 of the 6 minor collective minimum requirements. One minor requirement was not met, and another is reported to be pending, awaiting a Board Order on net metering.

File timely program plan updates and evaluation reports

The utilities, through the Collaborative, have responded in a timely fashion in submitting required program plans. These have included the April 9, 2001 CRA Compliance Filing, the July 9, 2001 Supplemental CRA Compliance Filing, and the



November 1, 2001 CRA Plan Filing -- the last after requesting a one-month extension. The Collaborative has also filed timely quarterly program administration reports, once the reporting process was put in place. While not filing a first quarter report (since the programs did not technically begin until the March 9, 2001 CRA Board Order), the Collaborative filed the Second Quarter CRA Report on September 26, 2001, the Third Quarter Report two months later, on November 30, 2001, and the Fourth Quarter Report was filed just short of three months later, during the last week of February 2002. (Note: There is no reason why these quarterly reports could not show less of a lag. A 30-day period to compile the quarterly plans and close-out an interim accounting period should be sufficient.)

Evaluation contractors have been hired or are in the process of being selected to perform evaluations described in the July 9, 2001 Filing. The evaluation contractor for the Residential Low Income Program was hired in November 2001. Requests for Proposals for all other EE and RE program evaluations were issued in November 2001. Final reviews were completed and contractors were hired by the end of February 2002 for the following eleven programs:

- Residential Electric HVAC
- Residential Gas HVAC
- Residential Energy Star Windows
- Residential New Construction
- Residential Retrofit
- Residential Energy Star Lighting
- Residential Energy Star Appliance
- Commercial & Industrial Energy Efficient Construction
- Commercial & Industrial Building Operations & Maintenance
- Compresses Air Systems Optimization
- Customer-Sited Clean Energy Generation

Incorporate results of program evaluation into program implementation plans in a timely fashion



The Collaborative has not been able to incorporate on a state-wide basis the results of previous programs into program implementation plans in 2001. Rather, individual utility results have been used to influence plans on an ad hoc basis.

Over the last several years, PSE&G has completed evaluations on the Low Income “E-Team Partners Program” and the Residential A/C Cycling Program. A study was also conducted to assess the energy savings and kW reduction potential from air conditioner and duct improvements for new homes in PSE&G service territory, the results of which were incorporated into the design of the residential new construction program.

GPU Energy’s work pertains mostly to measurement and verification protocols that have been filed annually with the BPU, and they have been used to value lost revenue. These data were also used for purposes of valuing savings under the Collaborative C&I Construction Program, as found in the document “NJ Clean Energy Collaborative Protocols to Measure Energy Savings” filed with the BPU on July 9, 2001.

In addition to the evaluations completed by individual companies, PSE&G and GPU participated in the evaluation of two regional programs sponsored by the Northeast Energy Efficiency Partnerships, Inc.

The other utility companies in the Collaborative have reportedly not conducted formal program evaluations of similar programs in recent years.

Several documented program evaluations have been used to improve program implementation plans; these include:

- “E-Team Impact Evaluation: Measured Energy Savings, Final Report,” December 30, 1999. Conducted by M. Blasnik & Associates
- “PSE&G’s E-Team Partners Program Year Two Program Evaluation,” March 1999 Summary Report. Conducted by Response Analysis Corporation
- “Assessment of Energy Savings and kW Reduction Potential from Air Conditioner and Duct Improvements for New Homes in PSE&G Service Territory,” March, 1997. Conducted by Proctor Engineering Group
- Final Report Direct Load Control Evaluation,” December 28, 1998. Conducted by XENERGY, Inc.
- “Final Report 2000 Direct Load Control Evaluation,” July 16, 2001. Conducted by XENERGY, Inc.
- “MotorUp Evaluation and Market Assessment,” November 5, 2001. Conducted by XENERGY, Inc.



- “Cool Choice Study Group, Northeast C&I Initiative Process Assessment,” January 15, 2001. Conducted by PA Consulting Group

PSE&G has documented examples of the incorporation of evaluations and recommendations into their programs.

E-Team Partners Program

This program was subject to evaluation from its rollout in 1996 until 1999, and there is documentation supplied by PSE&G and Honeywell DMC of the process of continuing evaluative feedback that led to program improvements.

New Construction Program

The results of the Proctor Engineering Group study were used to incorporate refinements into PSE&G’s EEH 5Star Program (forerunner of the ENERGY STAR Program). These included incorporation of a requirement for hard-ducted returns, duct sealing using mastic, and testing of charge and airflow.

A/C Cycling Program

The major finding of the XENERGY 1997 study was that there were problems with the RTU system that reduced the program’s demand impact. PSE&G subsequently upgraded components of the RTU system and the system head end. The XENERGY 2000 study examined the effect of the upgrades on the program’s demand impact.

MotorUp Program

PSE&G and GPU participated in this regional initiative through a working group. The evaluation report made two major recommendations: The first was to deliver a customer education program to promote motor management practices, and the second was to simplify the rebate process. The first recommendation was accepted by the working group, but the second was not.

Cool Choice Program

The evaluation made nine recommendations and, of the nine recommendations made, six were selected for implementation in 2001 by the regional working group.

Maintain statewide consistency in program design and implementation

This requirement has been met, as evidenced by the Collaborative actions and filings.



Properly and adequately staff and implement programs

The following information was summarized from utility-supplied information provided to DAI in February 2000.

Conectiv

The utility has three full-time employees assigned to CRA activities, including one Senior Program Manager and two Program Managers. All three positions require a BS degree (or equivalent) in Marketing, Business, or Engineering. The positions are filled with staff experienced in energy efficiency services, DSM, marketing, and the real estate market, and the three staff have an average of over 20 years in the utility industry.

GPU Energy

The utility has 14 full-time-equivalent employees assigned to CRA activities, including contractors. Utility personnel include the technical and managerial positions of:

- Senior Administrator (Human Services)
- Senior Analyst (DSM)
- Senior Engineer (DSM)
- Manager - Regulatory Programs
- Supervisor - Commercial & Industrial Programs
- Supervisor - Renewable Resources Programs
- Supervisor - Residential Programs

All require at least a Bachelor's degree in either engineering, environmental science, business administration/marketing, psychology/sociology, or economics/statistics/computer science, depending on the position within the utilities CRA effort.

New Jersey Natural Gas

The company has four positions assigned to CRA activities including:

- Director, Sales and New Business
- Technical Marketing Manager



- Marketing Sales Representative (2)

All four positions are filled with experienced employees who have backgrounds in conservation and DSM program implementation . The current employees have a mix of skills that include professional marketing and engineering, customer relations, and statistical accounting and average tenure with the company is almost 18 years.

NUI Elizabethtown

The company provided background information on four employees who manage the CRA programs:

- Manager, Market Development (Senior manager of the Collaborative Program)
- C & I Program Manager
- Residential Program Manager
- Residential New Construction Program Manager

All positions are currently staffed by employees with at least a Bachelor's degree or equivalent in the business degree fields of accounting, quantitative analysis, and marketing/public administration. The employees have from eight to 24 years experience in utility-related positions.

Public Service Electric & Gas Company

The utility has 17 technical and managerial employees assigned to CRA activities. The positions include:

- Director - Utility Services Marketing
- DSM Regulation Manager
- Manager - Demand Side Marketing
- Manager - Demand Side Management
- Program Administrator/DSM Service Consultant
- Marketing Campaign Manager(s)
- Senior Energy Applications Engineer
- Sales Representative - Energy Efficiency Programs
- Principal Staff DSM Analyst
- Program Manager(s)
- Project Manager

The utility reported 17 employees occupying positions supported by the Collaborative and CRA funds. Their tenure with the company ranges from four years to 35 years, and



averaged almost 19 years per employee. This, of course, does not include prior experience outside of PSE&G. All employees have at least a Bachelor's degree or equivalent in various business and engineering fields, and many have post-graduate degrees.

Rockland Electric Company

The utility has three full-time employees assigned to CRA activities, including a Manager for Energy Services and two Energy Management Administrators. All three positions require a BS degree (or equivalent) in marketing/business/accounting or engineering. The positions are filled with staff experienced in energy management and services, DSM, and customer service. The three staff have an average of almost 25 years with the utility.

South Jersey Gas Company

The utility has a single full-time employee responsible for all CRA-related activities. The employee is very active in the Collaborative in addition to day-to-day activities with the company. The incumbent has a post-graduate degree in Public Policy and has held previous positions in C&I power sales, Builder/developer utility sales, commodity and retail product sales, and weatherization.

Section VI

Utility Performance

The utilities, through the New Jersey Clean Energy Collaborative, have done a good job in meeting the minimal program administrative requirements for 2001. In evaluating this performance, DAI utilized the information obtained from dozens of interviews and discussions throughout the state, an enormous amount of printed material documenting not only what took place in 2001, but also relevant utility experience prior to the creation of the CRA (e.g., DSM performance), dozens of interviews and discussions with SBC program experts outside of the state, research, and the extensive experience DAI has with utility, environmental, managerial, and industrial issues at the national and local levels. With respect to the minimal program requirements, the utilities' performance on a scale of letter grade A through letter grade F would be:

- Adhere to the affiliate relations standards adopted by the Board:

Based on the official evidence and documentation submitted to DAI and reviewed, an A



- As set forth in each program plan, meet the agreed upon minimum performance requirements for each program:
While the minimum requirements set by the Collaborative could be judged as "extremely low" and not necessarily challenging, at the same time, this was the first year of the CRA effort, and setting minimum requirements and challenging goals can be initially difficult and hard to target; therefore, a B
- File timely program plan updates and evaluation reports:
The Collaborative, once it designed a smooth paperwork process, performed well; an A
- Incorporate results of program evaluation into program implementation plans in a timely fashion:
There was an obvious lack of emphasis placed on the evaluation process, since the Collaborative was more interested in establishing itself administratively and reaching agreement on the state-wide programs; a C-
- Maintain statewide consistency in program design and implementation:
It is impressive to see the creation of a new entity to administer programs that affect millions of ratepayers across the state; an A+
- Properly and adequately staff and implement programs:
Personnel devoted to the CRA program are experienced, qualified individuals, as are most of the contract staff, a B+

Overall, the Collaborative is an impressive achievement, and within one year the New Jersey utilities:

- Formed themselves into the Collaborative and became a team.
- Organized the Collaborative, developed an operational structure, processes, and resources, and:
 - Provided the Collaborative with experienced managers and devoted sufficient trained staff to manage the implementation of the programs.
 - Defined administrative costs and developed a system for consistently collecting and reporting these costs.
 - Met the minimum administrative requirements mandated by the BPU.
- Agreed upon and implemented 12 state-wide programs, setting goals for each individual utility to achieve in each of the programs, and measuring and reporting on their progress in achieving the goals, both by utility and collectively.
- Developed and issued RFPs for evaluation of the various programs.



- Used their collective buying power to improve efficiency and lower costs.

While the utilities have generally performed quite well with respect to their Board-approved standards, the overall picture does not reflect the detail below the surface. There are serious problems which DAI has uncovered and which deserve attention from the BPU.

Section VII

New Structure

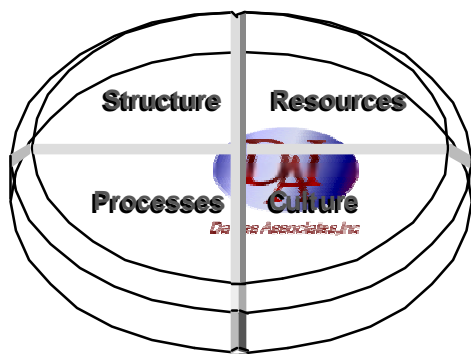
The formation and operation of the Collaborative is an impressive achievement for the utilities. They reached agreement among seven disparate utilities, selected programs, and began operating both administratively and financially in a relatively short time.

In the rush to get up and running, the Collaborative focused on short term goals and having programs operational. As such, the current EE programs are mostly legacy DSM programs, selected from the utilities' DSM programs. In addition, there seems to be a focus on environmental benefits to the extent that the end justifies the means. Despite EDECA language classifying natural gas-fed fuel cells as a Class I renewable energy resource, there seemed to be no vigorous opposition to this in the Collaborative and much of the Tier I RE funding went to this technology. The continued passive approval of this classification is inhibiting the achievement of another of the CRA goals, namely the development of a renewable energy industry in New Jersey.

We saw the Collaborative in operation and interviewed its members and supporting consultants, both collectively and individually. We reviewed its operations, including its purchasing processes and the RFPs that the Collaborative issued. We found the processes to be efficient in that they eliminate duplication and maximize their purchasing power.

However, we found problems with the Collaborative in terms of its structure, processes, resource, and culture that need to be further examined. To do that, we compared the existing Collaboration to the "ideal" standards to develop recommended changes to the current Collaborative or recommend a new organization to administer the EE&RE programs.

An organization has four parts, as shown below, that must work in unison to perform effectively and efficiently.



Structure includes the organization's membership, its relationship to the various external entities represented, its internal structure comprising the Board of Directors, the management, committees, staff, etc. and their relationships, the responsibilities and quality of leadership, and the distribution of power and influence, both formally and informally.

Resources include the people, their background and level of expertise, the training they are provided, the availability of staff support and other support systems to all participants, the access to information, the use of consultants, facilitators, and other outside persons, and the availability of funding.

Processes include the decision-making rules, the criteria for evaluating and adopting programs, the manner in which innovative ideas are solicited, received, promoted, evaluated, adopted, and implemented, the method by which activities are shaped and guided, all of the written and unwritten procedures for getting things done, and the motivation and reward systems.

Culture includes attitudes, beliefs, values, expectations, motivations, management styles, and interpersonal styles, and the degree to which these differences were effectively accommodated.

Under the current Collaborative structure, positive aspects include:

- The utilities are meeting regularly and pooling abilities and resources.
- There is required NRDC participation.
- There are conservation technology specialists used as consultants in each Working Group (Advisors).
- There is a consultant performing required organizational and administrative duties.

Under the current Collaborative structure, negative aspects include:

- Slow decision-making and high cost, since monthly Senior Manager's meetings are attended by multiple employees from each utilities and NRDC.
- There are at least seven utility representatives at the Senior Manager's meetings, and this minimizes the input of the NRDC representative.
- There is no Director to provide leadership and guidance on conformance to EDECA, BPU, and CRA goals.
- There is insufficient technical input from energy efficiency, conservation, solar, and renewable experts at the senior management level.



- The Collaborative semi-directly pays for the Advisors and their travel expenses.
- The utility focus on prudence slows decision-making.

Under the current Collaborative processes, positive aspects include the ability to:

- Easily and efficiently design, implement, and manage programs.
- Organize, prepare, and file accurate reports to the BPU.
- Develop, collect, and continually improve the reporting of administrative costs.
- Efficiently and effectively administer consistent statewide programs.

Under the current Collaborative processes, negative aspects include:

- No reason to monitor nor effectively manage administrative costs outside of BPU audit or threat.
- The practice of reporting outsourced administrative costs as a Contractor cost, excluded completely from the Administrative Cost.
- No incentives for long term planning or goals.
- No incentives for achieving CRA goals.
- Lack of a strategy and planning system.
- No incentive to operate efficiently as a competitive, private-sector entity would.
- A budget that is not a contract for performance.
- No focus on results, since payments are based on prudent investment and not achievement of results.
- No incentive to interconnect electric RE technologies.
- A disincentive to champion a true, statewide renewables program that does not use natural gas input.

Under the current Collaborative resources, positive aspects include:

- Cost-effective sharing of technologies and ideas.
- Management time devoted to the Collaborative by the Utilities.
- A pool of experienced and well-educated staff available in each utility for the existing programs.
- Some flexibility to reallocate program budgets during the year.



- More than adequate funding from the state ratepayers for the next seven years, guaranteeing the possibility for many significant long-run results.

Under the current Collaborative resources, negative aspects include:

- Funds have been targeted by the BPU to fit into funding categories, hindering budget shifts from program to program (ie: EE vs. RE customer sited vs. RE grid connected).
- State-wide expenditure accounting can be confusing because all funds reside in utility accounts, and the funds are not protected from bankruptcy or other financial situations the utilities may encounter.
- Utility senior management is not as active as it could be in the decision-making process.
- Utility staff, while well versed in DSM programs, are generally not familiar with the renewable energy technologies or the requirements of market transformation.

Under the current Collaborative culture, positive aspects include:

- There has been some progress towards meeting the intentions of EDECA, BPU, and CRA.
- There is a cooperative environment shared by all utility employees and NRDC.
- There exists the enthusiasm of working on a new statewide program.
- Ratepayer benefits are seen in statewide programs.

Under the current Collaborative culture, negative aspects include:

- An early focus on getting programs running and funded, rather than a focus on the original goals and evaluation process.
- Slow decision-making.
- Operational focus and risk avoidance -- the payment system stresses prudence and avoidance of mistakes.
- Conflict of interest in the utility marketing of energy services and the energy conservation principles of EDECA and CRA.
- Conflict of interest in the utility marketing of energy services and the objective of increasing demand for renewable energy technologies – technologies that replace utility-supplied energy.

In order to achieve the CRA objectives, the organizational structure needs to facilitate risk taking and decision-making and to be efficient.

To facilitate decision making the organization structure needs:

- Leadership with the authority to:
 - Set and approve goals and objectives, and commit member organizations (the utilities) to these goals.
 - Set and approve budgets and incentives.
 - Change budgets and programs as required during the year
- Stronger BPU oversight by staff members supported by an independent business group with sufficient managerial experience and technical and analytical skills to:
 - formulate and review goals, objectives, budgets and incentives,
 - review goal achievement and recommend for or against incentive payments.

Since this type of resource is not available within the Commission, it should be obtained from consultants reporting to the BPU, appointed on a multi year basis subject to performance, and paid for by the utilities out of the SBC funds.

- Significant involvement of the:
 - utilities in the EE programs, since the utilities are probably the best implementers of EE programs.
 - all industry participants in the RE program.
- To avoid duplication of effort both at the BPU and within the Collaborative and the utilities.

The organization needs processes designed to achieve the CRA Objectives.

The organization needs to treat the CRA funds as an investment by New Jersey consumers. As in all investments, the investors want their money back and a return on their investment. The implementers, the utilities, should be paid an incentive for achieving the CRA objectives, which is the investors' return on their investment -- the "investment bargain."

To focus attention on achieving results requires processes which:

- Develop programs to implement the CRA objectives and Critical Success Factors (CSFs) over the remaining seven year life of the CRA.
- Have measurable goals tied to the implementation of objectives and CSFs.



- Freely communicate the goals, objectives and incentives, both within and outside the ISA.
- Base rewards on effectiveness-achievement of goals -- and efficiency -- the costs of doing so.
- Provide activity based costs by CRA objective and CSF and the programs to achieve them, thus allowing assessment of efficiency.
- Continually measure and update performance.

The organization needs the resources necessary for implementing the processes.

The resources required for this organization need to have strong skills and experience in:

- Transforming markets
- Economics and market assessments,
- Technologies for Renewable Energy and Energy Efficiency technologies,
- Asset Management and Utilization,
- Management, goal setting, and measurement.

The organizational culture must promote risk taking, value results, and deal with conflict openly and frankly.

The culture must be one which:

- Values results and considers budgets a contract for performance between the resource owner (customers) and the resource user.
- Recognizes and deals with differences of interests openly and frankly and develops consensus.
- Empowers utilities to act.
- Reinforces culture by rewards based solely on achievement and the keeping of the "investment bargain".
- Accept Risks: Penalizing an implementer for a well-conceived but ultimately unsuccessful market transformation program -- by, for example, denying cost recovery or withholding shareholder incentives -- will send the message that market transformation programs are not worth the risk.

Given the large number of differences between the current Collaborative and what's required to meet New Jersey's CRA goals, we feel that a number of changes to the organization that administers the state's CRA EE & RE programs would improve both programs and would better fulfill the intentions of EDECA, the CRA, and the BPU.

The Board purposefully did not order substantial organizational changes to the administration of the CRA programs in March 2001 because it did not want to disrupt an existing system of utility programs (i.e. the DSM program process) and wanted programs addressing the goal of EDECA to be initiated as soon as possible. The Board was relying on the DAI evaluation of the programs and their administration to make adjustments to the administration of the programs. It is now time for the Board to make final changes to the implementation of the CRA that will carry it forward for the next seven years and continue to allow New Jersey to lead other states in these SBC-funded efforts.

We take into considerations the resource limitations, costs, and time restraints involved in organizational change. Designing and implementing a new organization is not costless, nor is it instantaneous.

The costs include;

- Direct costs such as facilities, resources, process design, retraining, etc.
- Indirect costs such as disruption and disturbance of already operating programs and systems

Time is lost as resources and facilities are obtained, processes implemented and working relationships established. However, we feel that the Board needs to take a long-run approach to meeting the original goals of EDECA and that substantial changes are in order.

Given the information and analysis provided in this Appendix as well as other pertinent information in the other Appendices, the following recommendations will be forwarded and appear in the Final Report:

1. That the utility and NRDC Collaborative become an official and legal business entity and continue to administer the EE programs unless other wise noted (see recommendation 4).
2. That the BPU outsource Collaborative EE oversight responsibilities to a competent business group experienced in market transformation, EE program management, and strategic planning.

3. That the Board consider transferring the administration of the EE Low Income Program to a state agency that has the charter to assist the target population in New Jersey.
4. That the SBC monies collected by the utilities for CRA programs be placed in a separate fund administered easily audited by the BPU Division of Audits and outside of the reach of utility business associates and interests (bankruptcy protection).
5. That the Board consider pay-for-performance guidelines (incentives and disincentives) for utilities to recover payment for CRA expenditures.
6. That the BPU assume responsibility for the CRA Renewable Energy Programs and allocate up to five percent of the RE funds (or one percent of SBC funds) to support them.
7. That the BPU acquire input and direction on RE programs from a semi-independent Committee comprised of expert representatives from:
 - A New Jersey electric utility
 - The Mid-Atlantic Solar Energy Industry Association
 - New Jersey State Department of Environmental Programs
 - Owner, director, or representative of a manufacturer of PV or wind energy systems
 - Owner, director, or representative of a renewable energy system installation company
 - New Jersey State Department of Commerce
 - Private consultant expert on the renewables industry and market transformation

If instituted, these recommendations will temporarily retard progress on the slow, if not misguided, efforts of meeting the stated goals of EDECA currently underway. However, we feel that if these changes are instituted over the next three months, the ratepayers of the state will be in a better position to collect on their investment in the new and brighter future for New Jersey.